

- Appln. No.: 10/031,337
- Docket No.: 66722-013-7
- Amdt. Dated Jan. 24, 05
- Reply to Office action of Mar. 29, 04

REMARKS

By this Amendment the specification has been amended on pages 1-3 to better conform with U.S. practice. Entry is requested.

In the outstanding Office Action the examiner has rejected claims 1-7 under 35 U.S.C. 103(a) as being unpatentable over Goodings et al.. The applicants again assert that this rejection is without merit.

As noted previously, Goodings et al. disclose a hearing aid which includes a filter in an electrical feedback path, the characteristics of the filter modeling acoustic coupling between a receiver and a microphone.

The examiner asserts that all elements of applicant's claims 1 and 6 except the bandwidth detection means are known from Goodings et al. Regarding the bandwidth detection means, the examiner asserts that, even if they are not described as a part of a feedback detection means, Goodings et al. teach the use of bandwidth detection means for adjusting the center frequency of other filtering components (referring to column 2, lines 42-46), and thus it would have been obvious for one of ordinary skill in the art at the time of the invention to include bandwidth detection means for determining the presence of a feedback signal.

However, Goodings et al. do not teach the use of bandwidth means. In this regard, column 2, lines 42-46 states:

"This technique has to be adaptive since the oscillation frequency and amplitude will vary according to changes in external conditions. Furthermore the detected signal has been used to adjust the centre frequency of a notch filter, that is to say a filter with a frequency selective reduction in gain centered at or near the oscillation frequency."

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feedback is not present and quickly changing the mode essentially without audible oscillations. This results in fewer audible side effects and an improved user comfort.

~~Advantageous embodiments are described in the dependent claims 2-5 and 7. The function and effect of these is explained in connection with the preferred embodiment.~~

Page 3, replace the paragraphs starting at line 6 and ending at line 10 with the following paragraphs.

FIG. 2 is a schematic diagram showing an embodiment of the system according to the present invention, and

FIG. 3 is a schematic diagram showing the feedback detection system according to the invention.

Page 3, replace the paragraph starting at line 14 and ending at line 16 with the following paragraph.

A well known principle for feedback cancellation in hearing aids is shown in ~~fig.~~ Fig. 1. All the components described below, except blocks (1), (5) and (50), operate in the discrete time domain.

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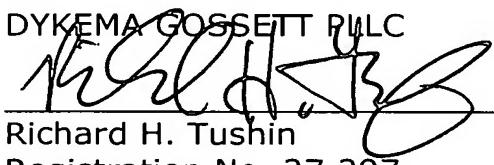
The first sentence here refers to the necessity of an adaptiveness of the prior art being described. The last sentence explains how a detected feedback signal has been used to adjust the center frequency of a notch filter. Further, the nature of a notch filter is explained; namely, that it is a filter with a frequency selective reduction in gain, and followingly that the center frequency of the notch filter is to be placed at the oscillation frequency of the unwanted oscillation.

No reference of bandwidth detection means or the use of such are present in the above part of Goodings et al. No other part of Gooding's et al. appears to disclose such a reference. Thus, there is no reference in the prior art which could prompt the person of ordinary skill to make use of bandwidth detection means in an adaptive method for canceling feedback in an acoustic system as mentioned in applicants' claim 1 and in a hearing aid as mentioned in applicants' claim 6.

The examiner's prior art rejection should be withdrawn.

The examiner is again requested to acknowledge receipt of the Information Disclosure Statement, filed January 18, 2002 (resubmitted on July 2, 2004).

Respectfully submitted,

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